

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

Art Unit: 2154

Examiner: Patel, Ashokkumar B.

Serial No. 09/922,175

Filed: August 1, 2001

In Re Application of: James E. Kracht

For: IDENTIFYING MODULAR CHASSIS COMPOSITION BY USING
NETWORK PHYSICAL TOPOLOGY INFORMATION

BRIEF ON APPEAL

Director of Patents
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Sirs:

This is a Brief on Appeal for consideration by the Board of Patent Appeals and Interferences (“Board”) of the Final Office Action, dated May 1, 2006, rejecting all of the claims of the present application. A timely Notice of Appeal was filed on September 1, 2006.

REAL PARTY IN INTEREST

The only real party in interest regarding the present application is Cisco Technologies, Inc., assignee of the present application.

RELATED APPEALS AND INTERFERENCES

To the best of Appellants’ knowledge, there are no appeals or interferences that will directly affect or be directly affected by or have a bearing upon the Board’s decision in the pending appeal.

STATUS OF CLAIMS

There are a total of 18 claims (claims 1-5, 13-16, 19-22, and 25-29) in the application. Claims 1-5, 13-16, 19-22, and 25-29 have been rejected under 35 USC 102(e) as being unpatentable over (U.S. 2003/0069874 A1). Claims 5-9, 16-17, and 23-28 have been rejected under 35 U.S.C. 103(a). Claims 1-40 are on appeal.

STATUS OF AMENDMENTS

There were no amendments filed subsequent to the Final Office Action.

SUMMARY OF THE INVENTION

The present invention is directed towards a method and apparatus for identifying internal occupants of a communications system chassis with an Ethernet backplane and at least one internal occupant. The method comprises: verifying that a system switch processor (“SSP”) has been assigned an IP address; requesting a discovery protocol data package from the SSP; determining whether the discovery protocol data package corresponds to at least one internal occupant; and if the discovery protocol data package corresponds to the at least one internal occupant, then discovering occupant information corresponding to the at least one internal occupant. The apparatus comprises the means for verifying that a system switch processor (“SSP”) has been assigned an IP address; means for requesting a discovery protocol data package from the SSP; means for determining whether the discovery protocol data package corresponds to at least one internal occupant; and means for discovering occupant information corresponding to the at least one internal occupant if the discovery protocol data package corresponds to the at least one internal occupant.

The present invention is also directed towards a method and apparatus for cyclically identifying occupants of a communications system chassis with an Ethernet backplane and at least one internal occupant. The method comprises: requesting a link status from a SSP; determining whether all of the at least one internal occupant in the communications system chassis have been discovered; waiting for next cycle if all of the

at least one internal occupant in the communications system chassis have been discovered; determining whether the link status corresponds to the at least one internal occupant, if all of the at least one internal occupant in the communications system have not been discovered; determining whether the link status is up and a slot corresponding to the link is not occupied, if the link status corresponds to the at least one internal occupant; launching a slot discovery, if the link status is up and the slot corresponding to the link is not occupied; determining whether the link status is down and the slot corresponding to the link status is occupied, if the link status is not up and the slot is not occupied; and identifying the at least one internal occupant as non-operational, if the link status is down and the slot is occupied.

The apparatus comprises the means for requesting a link status from a SSP; means for determining whether all of the at least one internal occupant in the communications system chassis have been discovered; means for waiting for next cycle if all of the at least one internal occupant in the communications system chassis have been discovered; means for determining whether the link status corresponds to the at least one internal occupant, if all of the at least one internal occupant in the communications system have not been discovered; means for determining whether the link status is up and a slot corresponding to the link is not occupied, if the link status corresponds to the at least one internal occupant; means for launching a slot discovery, if the link status is up and the slot corresponding to the link is not occupied; the means for determining whether the link status is down and the slot corresponding to the link status is occupied, if the link status is not up and the slot is not occupied; and means for identifying the at least one internal occupant as non-operational, if the link status is down and the slot is occupied.

The invention is further directed towards a method and apparatus for cyclically identifying occupants of a communications system chassis with an Ethernet backplane and at least one occupant installed in at least one slot. The method comprises: requesting a discovery protocol data package from a SSP; determining whether all of the at least one slot in the communications system chassis have been discovered; marking the at least one slot that have no discovery protocol information as empty, then waiting for a next cycle

to begin, if all of the at least one slot in the communications system chassis have been discovered; determining whether the discovery protocol data package corresponds to the at least one internal occupant, if one of the at least one slot in the communications system chassis has not been discovered; determining whether the discovery protocol data package is consistent with a discovery protocol data package previously obtained, if the discovery protocol data package corresponds to the at least one internal occupant; and launching a slot discovery, if the discovery protocol data package is not consistent with the previously obtained discovery protocol data package. The apparatus comprises: means for requesting a discovery protocol data package from a SSP; means for determining whether all of the at least one slot in the communications system chassis have been discovered; means for marking the at least one slot that have no discovery protocol information as empty, then waiting for a next cycle to begin, if all of the at least one slot in the communications system chassis have been discovered; means for determining whether the discovery protocol data package corresponds to the at least one internal occupant, if one of the at least one slot in the communications system chassis has not been discovered; means for determining whether the discovery protocol data package is consistent with a discovery protocol data package previously obtained, if the discovery protocol data package corresponds to the at least one internal occupant; and means for launching a slot discovery, if the discovery protocol data package is not consistent with the previously obtained discovery protocol data package.

GROUPING OF CLAIMS

Appellants consider that although all of the claims presented for consideration before the Board are allowable over the prior art of record, the patentability of individual claims may stand or fall as a group. Claims 1-5, 13-16, 19-22, and 25-29 are grouped. Claims 1-5 are grouped. Claims 13-16 are grouped. Claims 19-22 are grouped. Claims 25-29 are grouped.

ARGUMENT1. The 35 USC 102(e) rejection

In the Final Office Action, dated May 1, 2006, Claims 1-5, 13-16, 19-22, and 25-29 were rejected under 35 USC 102(e) as being unpatentable over U.S. published application 2003/0069874 A1). Applicant is unable to find a published application having the publication number 2003/0069874 A1 and an inventor named Fee. Applicant assumes that this is merely a typographical error, as the Notice Of Reference cited includes an issued U.S. Patent to Fee having the patent number 6,415,314. This response addresses citations in the Office Action to this issued patent to Fee et al.

With respect to claims 1, 13, 18, and 25 (all pending independent claims), Applicant respectfully submits that not all of the claimed elements in the independent claims are taught, suggested, or otherwise disclosed by Fee. Claim 1 of the present application reads:

(Original) In a communications system apparatus with an Ethernet backplane and at least one internal occupant, a method for identifying internal occupants comprising:

- verifying that a system switch processor (“SSP”) has been assigned an IP address;
- requesting a discovery protocol data package from said SSP;
- determining whether said discovery protocol data package corresponds to said at least one internal occupant; and
- if said discovery protocol data package corresponds to said at least one internal occupant, then discovering occupant information corresponding to said at least one internal occupant.

Fee, however, fails to teach or disclose the claimed limitation of requesting a discovery protocol data package from the SSP. Examiner has cited Fee at col. 8, lines 47-55 as disclosing this limitation. However, fee, at col. 8, lines 47-55 reads:

5. MIB Distribution

The DCA uses MIBs to gather information about the chassis and to effect control on the chassis. A MIB is a collection of managed objects (MOs) organized into a naming (MIB) tree with each object having a unique name or identifier within the tree. The identifier is known as an OID or Object Identifier. In order for the DCA to operate as a single entity across all the modules in the chassis, all the MIBs supported by the chassis must be distributed across all the modules.

However, the Examiner has also likened the DCA to the SSA of the claimed invention, by saying that “Fee teaches ...(the claim limitation of) verifying that a system switch processor (SSP) (col. 8 line 33-38, “DCA”) has been assigned an IP address (col. 6, line 21-52). The examiner cannot say that the DCA of Fee not only is the SSP of the present application AND ALSO requests the discovery protocol data package from said SSP, as such a reading means that the DCA in Fee is requesting a discovery protocol data package FROM ITSELF. Furthermore, Fee at col. 8 lines 47-55 does not describe requesting a discovery protocol data package, it merely says that the DCA uses MIBs to gather information about the chassis. If the Examiner wants to read in protocol data into this portion of Fee, or any other, and maintain a rejection based on “information about the chassis” necessarily means a protocol data package, Applicant respectfully requests evidence supporting such an assertion.

In response to this argument, the Examiner cited “facts about DCA” that again failed to describe a DCA from which information is requested, but actually described a destination module to which packets are sent, and there is no description of the packets as being a request of any sort. Thus, Applicant argues that Examiner has failed to address Applicant’s arguments.

Because Fee does not teach, suggest, nor otherwise disclose requesting a discovery data protocol package, Applicant also respectfully submits that Fee fails to teach, suggest, or otherwise disclose the claimed limitation of if said discovery protocol data package

corresponds to said at least one internal occupant, then discovering occupant information corresponding to said at least one internal occupant. While the Examiner cites Fee at col. 7, lines 1-5 as disclosing this limitation, col. 7, lines 105 merely reads:

Module Type

Chassis IP address

Chassis MAC address

Chassis Serial number

SMB controller status

And therefore lacks the necessary verbiage contained in the claimed limitation. Specifically, there is no disclosure in this portion of Fee or any other that describes making a determination that a said discovery protocol data package corresponds to said at least one internal occupant, AND there is no disclosure in this portion or any other portion in Fee of discovering occupant information corresponding to said at least one internal occupant once such a determination is made.

Applicant respectfully submits that the Examiner failed to address these arguments above in the final Office Action mailed May 1, 2006, and continues to argue that Fee teaches a DCA in accordance with the present invention, despite the fact that Applicant has pointed out that what the Examiner considers to be a DCA serves as a destination in Fee rather than a source, from which information is requested (see claim 1 of the present invention).

Without particularly pointing out where a cited reference anticipates the limitations of a claim, a 35 USC 102(e) rejection cannot be maintained.

CONCLUSION

It is respectfully urged that the Examiner has erred in the rejection Claims 1-5, 13-16, 19-22, and 25-29 under 35 USC 102(e). The cited reference do not teach each and every element of the present application. Therefore, the Examiner has failed to make a *prima facie* case of lack of novelty as required by 35 USC 102(e).

Accordingly, in view of the foregoing comments and arguments, it is respectfully requested that the Board reverses the Examiner's rejection and allows Claims 1-5, 13-16, 19-22, and 25-29 in this application.

Respectfully submitted,

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CLAIMS

1. (Original) In a communications system apparatus with an Ethernet backplane and at least one internal occupant, a method for identifying internal occupants comprising:

verifying that a system switch processor (“SSP”) has been assigned an IP address;

requesting a discovery protocol data package from said SSP;

determining whether said discovery protocol data package corresponds to said at least one internal occupant; and

if said discovery protocol data package corresponds to said at least one internal occupant, then discovering occupant information corresponding to said at least one internal occupant.

2. (Original) The method of Claim 1, including the additional act of determining whether said at least one internal occupant is the last internal occupant in said apparatus.

3. (Original) The method of Claim 1 further including after said query of determining whether said discovery protocol data package corresponds to said at least one internal occupant, the additional act of:

determining whether said at least one internal occupant has a valid IP address, if the discovery protocol data package corresponds to said at least one internal occupant.

4. (Original) The method of Claim 1 including the additional act of populating a data table with said at least one internal occupant’s information.

5. (Original) The method of Claim 1 wherein the act of discovering occupant information corresponding to said at least one internal occupant further comprises:

determining whether said at least one internal occupant is a multiservice route processor;

discovering multiservice route processor information from said at least one internal occupant, if said at least one internal occupant is a multiservice route processor;

determining whether said at least one internal occupant is a system processing engine;

discovering system processing engine information from said at least one internal occupant, if said at least one internal occupant is a system processing engine; and

indicating an error for said at least one internal occupant if said at least one internal occupant is not a system processing engine.

6-11. (Withdrawn)

12. (Cancelled)

13. (Previously presented) A communications system apparatus comprising:
 an Ethernet backplane;
 at least one internal occupant operatively coupled to said backplane;
 wherein said at least one internal apparatus occupant is configured to identify internal other occupants of said communications system wherein said at least one internal occupant is further configured to:

verify that a system switch processor (“SSP”) has been assigned an IP address;

request a discovery protocol data package from said SSP;

determine whether said discovery protocol data package corresponds to said at least one internal occupant; and

discover occupant information corresponding to said at least one internal occupant if said discovery protocol data package corresponds to said at least one internal occupant.

14. (Original) The communications system apparatus of Claim 13, wherein said at least one internal occupant is further configured to determine whether said at least one internal occupant is the last internal occupant in said apparatus.

15. (Original) The communications system apparatus of Claim 13, wherein said at least one internal occupant is further configured to determine whether said at least one internal occupant has a valid IP address, if the discovery protocol data package corresponds to said at least one internal occupant.

16. (Original) The communications system apparatus of Claim 13, wherein said at least one internal occupant is further configured to populate a data table with said at least one internal occupant's information.

17-18. (Withdrawn)

19. (Original) An apparatus for identifying internal occupants of a communications system apparatus with an Ethernet backplane and at least one internal occupant comprising:

- means for verifying that a system switch processor ("SSP") has been assigned an IP address;

- means for requesting a discovery protocol data package from said SSP;

- means for determining whether said discovery protocol data package corresponds to said at least one internal occupant; and

- means for discovering occupant information corresponding to said at least one internal occupant, if said discovery protocol data package corresponds to said at least one internal occupant.

20. (Original) The apparatus of Claim 19, further comprising the additional means for determining whether said at least one internal occupant is the last internal occupant in said apparatus.

21. (Original) The apparatus of Claim 19 further comprising the additional means for determining whether said at least one internal occupant has a valid IP address, if the discovery protocol data package corresponds to said at least one internal occupant.

22. (Original) The apparatus of Claim 19 further comprising the additional means for populating a data table with said at least one internal occupant's information.

23-24. (Withdrawn)

25. (Original) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for identifying internal occupants of a communications system apparatus with an Ethernet backplane and at least one internal occupant, said method comprising:

verifying that a system switch processor ("SSP") has been assigned an IP address;

requesting a discovery protocol data package from said SSP;

determining whether said discovery protocol data package corresponds to said at least one internal occupant; and

if said discovery protocol data package corresponds to said at least one internal occupant, then discovering occupant information corresponding to said at least one internal occupant.

26. (Original) The program storage device of Claim 25, wherein said method includes the additional act of determining whether said at least one internal occupant is the last internal occupant in said apparatus.

27. (Original) The program storage device of Claim 25, wherein said method further includes after said query of determining whether said discovery protocol data package corresponds to said at least one internal occupant, the additional act of:

determining whether said at least one internal occupant has a valid IP address, if the discovery protocol data package corresponds to said at least one internal occupant.

28. (Original) The program storage device of Claim 25, wherein said method includes the additional act of populating a data table with said at least one internal occupant's information.

29. (Original) The program storage device of Claim 25, wherein said act of discovering occupant information corresponding to said at least one internal occupant further comprises:

determining whether said at least one internal occupant is a multiservice route processor;

discovering multiserver route processor information, if said at least one internal occupant is a multiservice route processor;

determining whether said at least one internal occupant is a system processing engine;

discovering system processing engine information from said at least one internal occupant, if said at least one internal occupant is a system processing engine; and

indicating an error for said at least one internal occupant if said at least one internal occupant is not a system processing engine.

30-35. (Withdrawn)